WE CLAIM:

1.   In a communications system having a group of interface devices for assembling messages transmitted as sequences of data packets from within a coverage area of a wireless communications network, a method for assembling a message from a sequence of data packets, including:

receiving at one interface device of the group of interface devices from the wireless communications network at least one data packet of a sequence of data packets that collectively form a message;

determining if the at least one data packet meets a predetermined criteria and if so sending out a request to the other interface devices of the group for any data packets of the sequence received by the other interface devices and receiving at the one interface device any data packets sent by the other interface devices in response to the request; and

assembling the data packets of the sequence into the message at the one interface device.

2.   The method of claim 1 including, prior to sending out the request, determining if the one interface device has received all the data packets of the sequence, wherein the request to the other interface devices is sent out only if a determination is made that the one interface device has not received all the data packets of the sequence.

3.   The method of claim 2 wherein the predetermined criteria is that the at least one data packet is the final data packet in the sequence.

4.   The method of claim 1 wherein the group of interface devices are distributed computers connected by a wired network across which the request is sent.

5.   The method of claim 4 wherein the request includes an interface device identifier identifying the one interface device and a sequence identifier identifying the sequence.

6.   The method of claim 1 wherein each data packet of the sequence includes information associating the data packet with the message and information indicating a location of the data packet within the sequence, wherein the criteria is based on a location of the at least one data packet within the sequence.

7.   The method of claim 1 including monitoring at the other interface devices of the group for the request and in reply thereto sending to the one interface device any data packets for the sequence received at the other interface devices.

8.   The method of claim 1 including monitoring at the one interface device for a request from any of the other interface devices of the group for data packets of a requested sequence, and sending any data packets of the requested sequence received by the one interface device to a requesting one of the other interface devices of the group.

9.   The method of claim 1 wherein the coverage area is a substantially continuous geographic area.

10.   The method of claim 1 wherein the coverage area includes a plurality of geographically dispersed areas.

11.   A gateway for exchanging messages between a packet-based wireless communication network and a second communication network, including:
       a gateway network;
       a group of interface devices for receiving messages transmitted as sequences of data packets from within a coverage area of the wireless communications network, the group of interface devices being coupled to the

gateway network for communicating there between, each of the interface devices including a message assembler for determining if the interface device should assemble a message for a sequence of data packets of which the interface device has received at least one data packet and if so sending out a request for any missing data packets to the other interface devices in the group over the gateway network and assembling the message upon receiving the missing data packets.

12. The gateway of claim 11 wherein each data packet sent over the wireless network is directed to a single interface device.

13. The gateway of claim 11 wherein the message assembler of each interface device determines if the interface device should assemble the message based on whether the interface device has received a data packet having a predetermined location in the sequence of data packets.

14. The gateway of claim 13 wherein the predetermined location is a last location in the sequence of data packets.

15. The gateway of claim 11 wherein the message assembler of each interface device monitors for a request for missing data packets of a sequence from other interface devices in the group and upon receipt thereof sends over the gateway network to the requesting interface device any missing data packets of the sequence that have been received thereby.

16. The gateway of claim 11 including at least a further group of further interface devices for receiving messages transmitted as sequences of data packets from within a further coverage area, the group of further interface devices being coupled to the gateway network for communicating there between, each of the further interface devices including a message assembler for determining if the further interface device should assemble a message for a

sequence of data packets of which the further interface device has received at least one data packet and if so sending out a request for any missing data packets to the other further interface devices in the further group over the gateway network and assembling the message upon receiving the missing data packets.

17. The gateway of claim 16 wherein each of the group and further group are assigned a respective dedicated communications channel on the gateway network for communicating requests for missing packets.

18. The gateway of claim 11 further including a plurality of wireless network adaptors associated with each interface device for converting data packets received from the coverage area from a first protocol to a second protocol suitable for the interface devices.

19. The gateway of claim 11 wherein the coverage area is a substantially continuous geographic area.

20. The gateway of claim 11 wherein the coverage area includes a plurality of geographically dispersed areas.